

most children of the same age do (11.4% vs. 4.3%), and need special therapy (e.g., physical, occupational, or speech therapy; 9.1% vs. 3.3%) due to a chronic medical, behavioral, or other health condition, compared to NBW children. LBW children were more likely to be defined as CSHCN compared to NBW children (28.8% vs. 20.2%). Rates of receiving treatment or counseling for a chronic emotional, developmental, or behavioral problem were non-significantly different between LBW and NBW (7.6% vs. 5.9%; $p=.20$). Regarding school performance, LBW children were more likely to have repeated a grade (22.1% vs. 13.0%), more likely to receive special education services (11.5% vs. 7.0%), and also more likely to receive “below average” or “poor” ratings on performance in school during the past 12 months (11.8% vs. 6.0%), compared to NBW children.

Children’s Health Status and School Performance by Birth Weight—Adjusted for Covariates

Although significant differences were found between LBW and NBW children on measures of health status and school performance, the weighted prevalence estimates do not take into account the significant differences found between LBW and NBW children for a number of demographic characteristics which may also influence child outcomes. Thus, logistic regression models were used to examine model-adjusted risks and risk ratios, controlling for race, parental education, household federal poverty level, and child sex (i.e., Average Marginal Predictions and Model Adjusted Risk Ratios presented in Table 2). Results suggest that for children’s general health status, birth weight was statistically significant ($p=.02$ via a Wald F test). LBW children were significantly more likely to be rated in “good,” “fair,” or “poor” general health rather than rated as in “excellent” or “very good health” compared to NBW children (model adjusted risk ratio: $RR=1.25$ [95% CI 1.04, 1.49]). Additionally, for children’s general health status the effects of race, parental education, FPL were also statistically significant ($p<.0001$ via Wald F

tests). For adolescent overweight/obesity, a trend was observed where LBW was associated with a decreased risk of overweight/obesity ($RR=.82$ [95% CI .66, 1.02]; $p=.07$); however, the effects of race ($p=.0003$), parental education ($p=.01$), FPL ($p<.0001$), and child sex ($p=.003$) were highly significant for adolescent overweight/obesity. Regarding asthma, birth weight was statistically significant for both lifetime ($RR=1.59$ [95% CI 1.33, 1.90]; $p<.0001$) and current asthma ($RR=1.70$ [95% CI 1.35, 2.14]; $p<.0001$). In addition, for lifetime asthma the effects of race ($p=.0001$), parental education ($p=.04$), FPL ($p=.004$), and child sex ($p<.0001$) were statistically significant. For current asthma, the effects of race ($p<.0001$) and FPL ($p=.001$) were also statistically significant.

For the majority of CSHCN items, birth weight was statistically significant. LBW children were more likely to currently need more medical care, mental health, or educational services than is usual for most children of the same age ($RR=1.91$ [95% CI 1.51, 2.43]; $p<.0001$), need prescription medication ($RR=1.31$ [95% CI 1.09, 1.57]; $p=.005$), experience limitations in abilities ($RR=2.48$ [95% CI 1.66, 3.68]; $p<.0001$), and need special therapy ($RR=2.73$ [95% CI 1.76, 4.25]; $p<.0001$) due to a chronic health, medical, behavioral, or other health condition, compared to NBW children. LBW children were more likely to be defined as CSHCN compared to NBW children ($RR=1.47$ [95% CI 1.26, 1.71]; $p<.0001$). In addition, results for need of more medical care, mental health, or educational services suggest that the effects of race ($p=.005$), parental education ($p=.04$), FPL ($p=.007$), and child sex ($p<.0001$) were also statistically significant. For prescription medication, the effects of race ($p=.0005$), parental education ($p=.0007$), FPL ($p=.05$), and child sex ($p<.0001$) were also significant. Results for limitations in abilities suggest that the effects of FPL ($p=.03$) was also statistically significant. Results for need special therapy suggest that the effects of race ($p=.03$) and child sex ($p=.008$) were also statistically significant. For CSHCN, the effects of race ($p=.002$), parental education ($p=.004$), FPL ($p=.02$), and child sex